REMARKS/ARGUMENTS

In view of the Request for Continued Examination, the amendments to the claims, and in view of the following remarks, reconsideration of the application is respectfully requested.

1. Interview

Initially, the Examiner is thanked for the courtesies extended during the interview of August 4, 2004. During the interview, claims 21-27 were discussed in regard to the prior art reference Atalla (U.S. Patent No. 4,315,101). More specifically, as for claims 21-26 and claim 28, the Examiner clarified that the term "upon" describes a temporal relationship between recited events in a process limitation and not a causal relationship. Furthermore, the Examiner seemed to imply that "upon" did not mean simultaneously, but rather "after". Therefore, for example, in Section (e) of claim 21, "upon the user's subsequent entry into the trusted environment, displaying the process identifier to the user through the trusted path", according to the Examiner, could be anticipated by a device which displayed a process identifier to a user through a trusted path after the user's subsequent entry into the trusted environment. More particularly, the Examiner indicated that if a user were to go into a trusted environment and find auditing records as disclosed by Atalla, such an action would display the previous "process identifier" such as "pay invoice number" or "money out".

In order to further distinguish between the present invention and the Atalla reference which provides a signal 110 upon favorable comparison of two ACK-TRAC signals and also has auditable records wherein a user may return to a trusted environment, dig for such records, and once again retrieve such a signal, Applicants suggested adding the word "automatically" within paragraph (e) of claim 21 before the word "displaying". While the Examiner did tentatively indicate that such an amendment may be helpful in overcoming the current rejection and would be

favorably viewed, no official finding of patentability of the claims over the prior art of record was provided during the interview.

In regard to claim 27, Applicants inquired as to whether or not the limitations of claim 27 were being interpreted in accordance with the Donaldson decision, and more particularly, under 35 U.S.C. §112, sixth paragraph, as means-plus-function-type claims. The Examiner responded that they were being considered as such, but his interpretation of the process was that Applicants must show the structure that the claim refers to in the specification which distinguishes from the prior art. Therefore, the Examiner indicated that, until such showing is made by the Applicants, the claims would not be interpreted with regard to the specification.

2. Amendments

Partially in response to the Examiner's rejection and also in response to comments made by the Examiner in the interview, claims 21 and 27 have been amended. More particularly, claim 21 has been amended to indicate that the method steps are conducted in sequence and the displaying of the process identifier in paragraph (e) is done automatically upon the user's subsequent entry into the trusted computing environment. Further, the display is stated to be performed so that the user is assured that the trusted path has been established. Support for this amendment can be found on page 31, lines 5-11, and page 32, lines 12-16, as well as numerous other places in the specification and drawings. In regard to claim 27, this claim has been amended to change the form of how the untrusted parsing means is claimed. More specifically, the untrusted parsing means is in means-plus-function format to more clearly indicate that it is intended to be interpreted under 35 U.S.C. §112, sixth paragraph. No new matter has been entered as a result of these amendments.

3. Priority/Drawings

Applicants hereby note with appreciation that an acknowledgment for priority has been made in the last Office Action and that the formal drawings have been approved.

4. Rejection under 35 U.S.C. §102 of claims 21-26 and 28

Claims 21-26 and 28 have been rejected under 35 U.S.C. § 102(b), as being anticipated by Atalla (U.S. Patent No. 4,315,101). This rejection is respectfully traversed.

With initial reference to claim 21, step (a) refers to, upon log on by a user, assigning a process identifier to the user in the trusted computing environment. The Examiner has argued on page 5 of the Office Action that this particular limitation is anticipated by the Atalla reference by an authorized person introducing his PIN via a keyboard. The Examiner refers to column 6, lines 58-60, as well as Figure 6, items 87 and 83. While the Applicant will concede that logging into a system is known, Applicant would note that this particular portion of the claim is indicating a time sequence. In other words, something occurs *upon* log on by a user. The prior art shows no such assigning of a process identifier upon login. Next, the Examiner alleges that the portion of the claim "assigning a process identifier to the user in the trusted computing environment" is anticipated by the disclosure in column 7, lines 35-43 and Figure 6, items 97 and 101. Column 7, lines 35-43 reads as follows: "The PIN thus regenerated from information accessed out of the computer memory 96 and the transmitted MSGE and SEQ. NO. received at the remote location are encrypted in module 97 which operates according to exactly the same algorithm as is used in module 83 on the two input signals that are applied in exactly the same format as is applied to module 83. The resulting TRAC 99 and ACK-TRAC 101 outputs appear as a composite N-bit output in the same format as the outputs of module 83."

As we can see from the quoted portion of the Atalla patent, item 97 is actually an encryption module which can be best seen in Figure 6, while item 101 refers to an ACK-TRAC or acknowledgment-transfer authorization code signal which is produced in encryption module 97. It is completely unclear from the Examiner's rejection as to what the Examiner is considering a "process identifier." Presumably, the encryption module 97 is not because it is more correctly characterized as the processing electronic component, such as a computer or CPU. Presumably the ACK-TRAC signal from encryption module 97 is what the Examiner is reading as a "process identifier." It should be noted that the keyboard 87 actually inputs the PIN into encryption module 83, not into encryption module 97. Regardless, the ACK-TRAC signal is not assigned by encryption module 97 upon a user logging on.

Further, it is unclear what the Examiner considers to be the trusted computer environment. Presumably, the Examiner is referring to correspondent office A in the Atalla patent, however this point is not clear. The trusted computing environment recited in claim 21 refers to a very specific type of software running within the computer itself. Applicants respectfully submit no such trusted computing environment as claimed is present in the prior art.

Turning now to the limitation of step (b) in claim 21 regarding the storing of the assigned process identifier in trusted memory, the Examiner refers to column 9, lines 26-34 of the Atalla patent which apparently indicates to the Examiner that an assigned process identifier is put in trusted memory. No specific memory is explicitly disclosed and it is unclear where in the drawings of the Atalla patent such a memory exists. However, even if one were to accept a memory existed to store audible records, nowhere does Atalla indicate that such a memory is a "trusted memory." Applicants respectfully submit that since a "trusted memory" is not present in the prior art, claim 21 should be allowed.

The Examiner then indicates in relation to step (c) of claim 21 that establishing a trusted path between the user and the trusted computing environment is

anticipated by an authorized person introducing his PIN to produce an input in a module to establish a trusted path and refers to column 6, lines 43-49 and 58-60 of the Atalla patent. Presumably, the Examiner is using the encrypted path from 83 to comparator 107 in Atalla to allege anticipation of a trusted path, but again such a connection between the language of claim 21 and the prior art cannot be made.

Regarding limitation (d), "through the trusted path, displaying the process identifier", the Examiner relies on the completion of directions as a process identifier, such as "pay invoice number" or "money out." In Atalla, presumably, a first user would be assigned to "pay invoice number" and a second one might be assigned "money out" etc. However, this type of process identifier is not assigned to the user, but rather establishes the type of process.

Finally, in relation to limitation (e) "upon the user's, subsequent entry into the trusted environment, displaying the process identifier to the user through the trusted path", the Examiner indicates that displaying the process identifier to the user through the trusted path and enabling an authorized individual to control a transaction with the aid of previously established files in a correspondent office is present in the prior art and refers to Atalla column 8, lines 31-44. Presumably, the Examiner is implying that, in Atalla, upon subsequent entry into the trusted environment, the process identifier of "pay invoice number" or "money out" is immediately displayed to the user. However, it would appear from a reading of Atalla most generous to the Examiner that only after entry into the alleged trusted computing environment and upon completion of certain directions or of a transaction would a pay invoice number or money out signal be returned to the user. As stated above, claim 21 has been amended to indicate that the method steps are to be conducted in sequence and, furthermore, that the process identifier is displayed "automatically" upon the user's subsequent entry into the trusted environment so as to assure the user that the trusted path has been established. Given that the Examiner's interpretation of the Atalla reference refers to audit records that may be displayed upon a user's subsequent entry into the alleged trusted computing environment if the user were to ferret out such

audit records, Applicants respectfully submit that this interpretation is not valid given that claim 21 recites the process identifier must now be automatically displayed upon the user's subsequent entry into the trusted computing environment whereas, in Atalla, such audit records previously relied on in the Examiner's rejection could not be so applied since the audit records mentioned in Atalla are not automatically displayed upon the user's subsequent entry into the alleged trusted computing environment.

5. Rejection under 35 U.S.C. §102(b) of claim 27

Claim 27 has been rejected under 35 U.S.C. § 102(b) or, in the alternative, under 35 U.S.C. §103(a) as being obvious over Atalla (U.S. Patent No. 4,315,101), in view of National Institute of Standards in Technology, "DES modes of operation." This rejection is respectfully traversed for the following reasons.

Initially, the Examiner is requested to examine this claim in accordance with 35 U.S.C. §112, sixth paragraph means-plus-function format. The claim includes several such limitations. The untrusted parsing means for generating a trusted parsed command recited in claim 27 essentially is a parser residing in the general untrusted operating system 20 which may parse a trusted command string and convert it to a binary representation. Parsers typically check syntax and semantics and prompt for missing parameters. While parsing strategies were well-known in the art at the time of the invention, the use of an untrusted parser in trusted software systems was unknown. Due to the complex nature of parsing, large amounts of computer code are generally associated with this activity. Prior art trusted software systems have included a parser for trusted commands and thus placed the code within the trusted computing base. In these systems, every trusted command was parsed and executed exclusively by trusted code. The inclusion of the parsing code in the trusted computing base was required as necessary for proper system operation. See supporting disclosure at page 34, lines 18-24, page 35, lines 1-5 and page 9, lines 18 through page 10, line 5 of the applicants' specification.

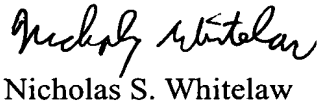
In rejecting claim 27, the Examiner refers in his Office Action to Atalla, column 6, lines 50-57 and Figures 5a and 5b items MSGE and 83 which is a message indicating the type of transaction supplied to the encryption algorithm module. The Examiner also refers to column 4, lines 50-59, and column 6, lines 60-64 when incorporating the National Bureau of Standards encryption-decryption algorithm. However, the Examiner has not indicated what the Examiner considers to be the untrusted means for parsing in Atalla. Presumably, the Examiner is referring to encryption module 83 as an untrusted parser and implies that the encryption algorithm can somehow be considered a parsing operation. Applicants respectfully submit that the encryption module 83, or encryption modules 97 and 113 as shown in Figure 6 of Atalla, is part of a trusted computer environment as it contains the codes that encrypt the various messages to be sent. It should be noted that the next limitation in claim 27 is a trusted means for receiving the parsed command via a trusted path. In regard to this limitation, the Examiner refers to Atalla, column 7, lines 1-7, Figure 6 and item 89, disclosing transmitting an encrypted message as a TRAC signal over a data link and refers to column 9, lines 29-34 disclosing that instructions required to command a transaction are submitted with substantial security against errors and unauthorized alterations, along with ample provisions for auditable records of the transaction. Once again, the Examiner has not indicated precisely what the "trusted means" in Atalla includes. However, it would appear at least the trusted path is being indicated by the Examiner as item 89. Presumably, therefore, the Examiner is holding comparator 103 as being the trusted means for receiving the encrypted command. It should be noted that, according to the invention recited in claim 27, the totality of the protection mechanism within the computer system, including hardware, software and firmware (the combination of which is responsible for enforcing a security policy), is commonly known as a trusted computer base and, in this case, is the supporting disclosure for the trusted means for receiving a parsed command via a trusted path. In the instant case, the trusted computer base or trusted means for receiving the parsed command via a trusted path is shown as trusted computing base 10 and resides at the core of the computing system. See, for example, Figure 1. More specifically, the command conveyor 14 obtains and copies a binary representation of the trusted

command into protected memory, then puts it in a global data structure that supports the user process associated with the terminal in question. See Applicants' specification page 20, lines 6-14 and page 35, lines 7-16. The means for displaying the representation of the parsed command to the user for verification essentially correlates with the SSVR or the secure server 12 as noted on page 42, lines 1-7. The trusted means for executing the verified parsed command correlates with the trusted computing base 10 which executes the command in a conventional manner. See page 47, lines 8-10. In summary, the Atalla reference does not disclose an untrusted parsing means to generate a parsed command, but rather discloses a trusted parsing means to generate a parsed command. Therefore, this prior art does not anticipate or render obvious claim 27.

Included with this amendment filed with the RCE, new claims 29-40 have been added to the application. In general, claims 29 and 30 set forth apparatus limitations corresponding to those presented in the method claims. Claims 31-34 set forth additional claims presented during the prosecution of the corresponding foreign application resulting in European Patent No. EP 0 443 423 B1 granted on this invention and, more specifically, set forth means-plus-function limitations corresponding to claims 17-20 in the European application. Finally, dependent claims 35-40 have been added based on changes made to prior presented claims 24-26 to remove multiple dependencies. Therefore, these dependent claims merely encompass the prior claim structure without utilizing multiple dependent claims.

In view of the amendments made to the claims, the discussions and agreements made with the Examiner, and the above remarks, allowance of this application is respectfully requested. If the Examiner should have any concerns regarding this Amendment/Response, he is cordially invited to contact the undersigned at the number provided below.

Respectfully submitted,



Nicholas S. Whitelaw
Attorney for Applicants
Registration No. 36,418

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DIEDERIKS & WHITELAW, PLC
12471 Dillingham Square, #301
Woodbridge, VA 22192
Tel: (703) 583-8300
Fax: (703) 583-8301